U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
HOVENSA 4DD Fire - Removal Polrep
Initial and Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: **POLREP #1**
Initial and Final
HOVENSA 4DD Fire

St. Croix, VI
Latitude: 17.7012000 Longitude: -64.7623500

To:
From: Cris D'Onofrio, OSC
Date: 2/14/2011
Reporting Period: 2/11/2011 - 2/14/2011

1. Introduction

1.1 Background

Site Number:	A263	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA/OPA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	Removal Assessment
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	2/11/2011	**Start Date:**	2/11/2011
Demob Date:		**Completion Date:**	2/14/2011
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

A fire occurred at the No. 4 Distillate De-Surferizer (4DD) located in the west end of the HOVENSA Refinery. The fire created a heavy smoke plume that traveled in a north westerly direction over businesses and neighborhoods.

1.1.2.1 Location

HOVENSA Refinery, 1 Estate Hope, Christiansted, St. Croix, USVI

1.1.2.2 Description of Threat

Potential impact to the public via smoke inhalation and/or soot/oily residue deposition.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Based on results of an impact assessment, the air monitoring results and EPA observations of the smoke plume, lasting health effects and impact to cisterns are not expected from this incident.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

A fire erupted at the HOVENSA refinery located in Estate Hope, St. Croix on February 11, 2011. The fire occurred in the western portion of the plant at the No. 4 Distillate De-Sulferizer Unit (4DD) at approximately 1515 hours. Heavy black smoke was initially associated with the fire until the HOVENSA fire brigade could bring the blaze under control. The fire brigade maintained a water curtain and applied fire suppression foam to control the fire until the affected pipelines could be isolated and purged. The fire was extinguished by 1747 hours; the all clear was sounded at 1755 hours. There were no injuries reported by HOVENSA related to the incident. The cause of the fire is under investigation.

EPA responded immediately to the incident with the United States Coast Guard (USCG), the Virgin Islands (VI) Department of Planning and Natural Resources (DPNR), the VI Department of Health (VIDOH) and the VI Territorial Emergency Management Agency (VITEMA). EPA utilized representatives from the USCG Atlantic Strike Team (AST) to conduct air monitoring within the downwind communities using equipment provided by the USCG Marine Safety Detachment. EPA/AST monitoring was conducted in an effort to augment and confirm air monitoring results obtained by the HOVENSA Rapid Air Monitoring (RAM) team. EPA/AST air monitoring results were non-detect for hydrogen sulfide (H_2S) and carbon monoxide (CO) within all community areas monitored.

The HOVENSA RAM team immediately responded to conduct air monitoring along the facility fence line and in the potentially impacted neighborhoods. The RAM team monitored for particulate matter and deployed an Area RAE suit to monitor for VOCs, H_2S, sulfur dioxide (SO_2), and CO. Elevated particulate levels as high as 0.44 mg/m3 were reported as attributable to the fire. (Typical background particulate levels range from 0.02-0.04 mg/m3.) Peak concentrations of 1.2 ppm SO_2 and 0.2 ppm H_2S were recorded at the fence line. Readings were below instrument detection limits throughout the community, however; it was reported that there was an odor present.

EPA also observed that as the response to the fire progressed, the originally heavy smoke plume diminished significantly. The relatively windy conditions served to dissipate the plume as it traveled in a north westerly direction away from the facility. The smoke plume did not impact the areas previously affected by the DCU release of December 9, 2010.

A Unified Command assessment team consisting of representatives from EPA, DPNR, VITEMA and HOVENSA conducted visual assessments in downwind neighborhoods and businesses as soon as the fire was extinguished. HOVENSA also deployed members of their RAM teams to conduct assessments. The teams inspected surfaces where soot would be expected to collect and be easily visible (cars, windows, building surfaces, road signs, vegetation, etc.). Areas assessed included Estate Profit, Profit Hills, New Works, Upper Love, Mt. Pleasant, Matthew Charles and the southern section of Clifton Hill. No soot or oil residues were noted in these areas. The inspections were terminated by sunset.

EPA and DPNR conducted a daylight assessment on February 12, 2010. HOVENSA also conducted additional daylight assessments. Areas assessed by EPA and DPNR included repeat visits to some of the neighborhoods inspected on 2/11/2011 and new inspections in Annaly Farms, Enfield Green, the Henry E. Rohlsen Airport and the Diageo Rum Factory. No visual signs of soot or oil droplets were observed in the neighborhoods. However, very light, potentially soot residues were observed by EPA/DPNR on signage posted along the Diageo Rum facility fence line.

EPA and DPNR personnel interviewed several witnesses on 2/12/11 including the VI Police Commissioner. The Commissioner indicated he was not home at the time of fire and did not wintess the impact to his neighborhood, however; he had not recieved any complaints from the residents of Enfield Green where he lives. The Executive Director of the VI Port Authority indicated that smoke did not impact the airport, however; employees in the Engineering Building did complain of an odor, with one employee complaining of feeling ill. Employees were sent home. The Security Officer at the St. Croix Renaissance Park, located on the west border of the refinery, reported that the area was impacted with heavy smoke from the fire, causing her to close the park and leave the premises. The remainder of the witnesses from neighborhood areas reported seeing the smoke plume with no significant problems associated.

HOVENSA rassessment teams reported soot residues on some cars at the Diageo Rum facility. HOVENSA was in the process of making arrangements to clean the cars at Diageo when Diageo management indicated that a recent rain event made cleaning the cars unnecessary.

HOVENSA received a complaint from one resident on St. George Hill that there was soot on his property. The HOVENSA Liaison Officer investigated and confirmed the presence of residue on a wall at the St. George Hill residence. The home is high on St. George Hill, which could have increased its vulnerability to impact from the smoke plume. HOVENSA is making arrangements to clean the residence.

Based on the duration of the incident, the results of the impact assessment, air monitoring results and EPA observations of the smoke plume, lasting health effects and impact to cisterns are not expected from this incident.

On 2/14/2011, the EPA OSC determined that no further EPA action was necessary based on the results of the visual assesments and follow-up public outreach conducted by HOVENSA, DPNR and EPA.

2.1.2 Response Actions to Date

HOVENSA investigated the cause of the fire. Immediately upon extinguishing the fire, a restricted area was established at the scene to preserve evidence. Safety and investigation teams immediately began their investigation. The investigation team was comprised of a combination of HOVENSA experts and a third party contractor in order to preserve the integrity of the investigation.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Responsible Party is the HOVENSA L.L.C., 1 Estate Hope, Christiansted, USVI. EPA is currently conducting compliance investigations at the facility.

2.1.4 Progress Metrics

Visual assessment of the potentially impacted neighborhoods has been completed. HOVENSA is making arrangements to clean one impacted residential home.

2.2 Planning Section

2.2.1 Anticipated Activities

The EPA Risk Management Plan Program will conduct follow-up on the accident investigation to determine the cause of the fire and corrective actions necessary to prevent future incidents.

2.2.1.1 Planned Response Activities

NA

2.2.1.2 Next Steps

EPA will monitor the progress of the accident investigation team.

2.2.2 Issues

EPA is concerned about the root cause of the fire, the continuing operational problems at the refinery, and the corrective actions that must be identified and taken to prevent future releases.

2.3 Logistics Section

NA

2.4 Finance Section

2.4.1 Narrative

NA

2.5 Other Command Staff

2.5.1 Safety Officer

No injuries were reported as a result of this incident.

2.6 Liaison Officer

NA

2.7 Information Officer

2.7.1 Public Information Officer

NA

2.7.2 Community Involvement Coordinator

The EPA OSC has contacted the CIC to discuss options for a public forum to allow the public to voice their concerns related to the continuing upsets/operational problems at the refinery.

3. Participating Entities

3.1 Unified Command

Unified Command was established during the fire response and included EPA, VI DPNR, VITEMA, VI DOH and HOVENSA.

3.2 Cooperating Agencies

United States Coast Guard (USCG)
Virgin Islands Territorial Emergency Management Agency (VITEMA)
Virgin Islands Department of Planning and Natural Resources (DPNR)
Virgin Islands Department of Health

4. Personnel On Site

2 EPA OSCs
2 USCG Atlantic Strike Team personnel
2 USCG Marine Safety Detachment personnel
The Commissioner and staff, VITEMA
The Commissioner, 2 Directors, 1 Enforcement Officer from DPNR
One Director, VI DOH
Several HOVENSA personnel

5. Definition of Terms

NA

6. Additional sources of information

6.1 Internet location of additional information/report

NA

6.2 Reporting Schedule

7. Situational Reference Materials

NA